Non-odontogenic Cysts

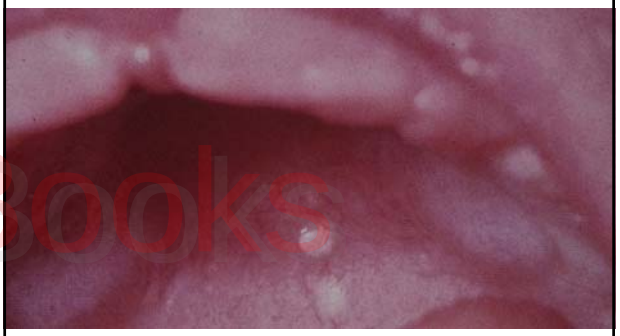
Dr. Ioannis G. Koutlas
Division of Oral Pathology

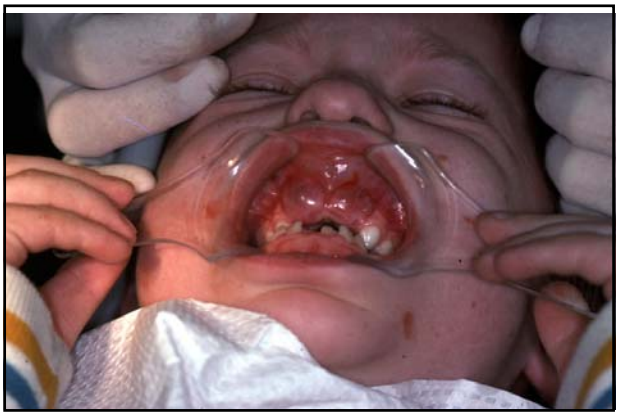
Developmental Cysts

- a.k.a. fissural cysts
- Exact pathogenesis of some of them uncertain
- Generally, slow increase
- May be identified incidentally

Palatal and gingival cysts of newborns

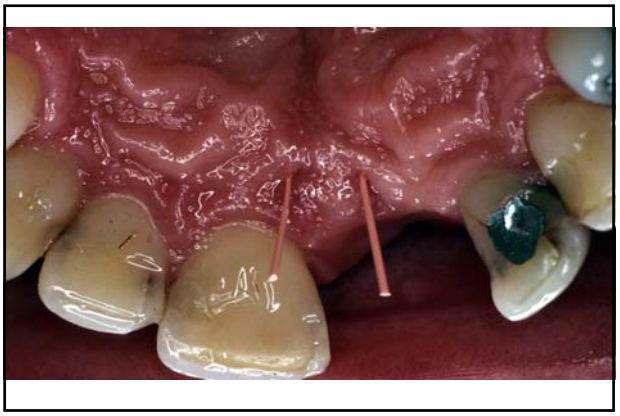
- Common (more than half of neonates)
- Small, occasionally in clusters
- Embryogenesis
  - Entrapped epithelium during formation of 2º palate
  - Epithelial remnants of salivary glands
- Epstein pearls: midline
- Bohn's nodules: hard/soft palate
- Gingival cysts: keratin filled
- No treatment, spontaneous rupture





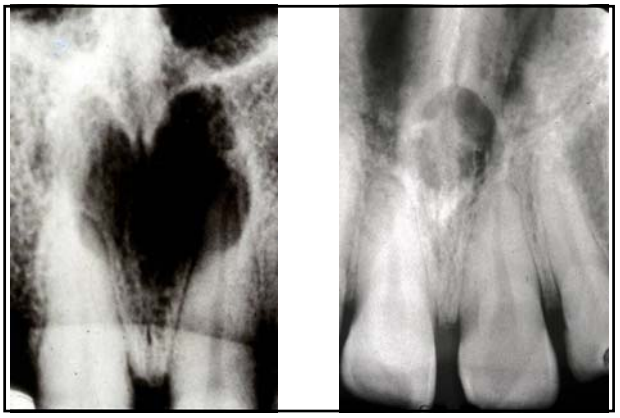
Nasopalatine duct cyst

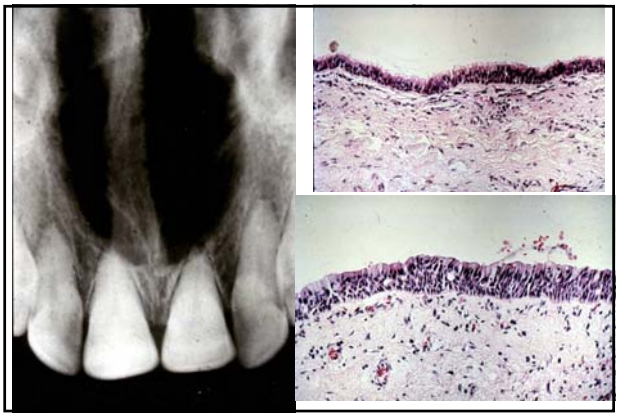
- a.k.a. incisive canal cyst, nasopalatal cyst
- Most common non-odontogenic cyst
- Embryogenesis
  - Remnants of nasopalatine duct
  - Incisive canals exit via a common foramen
  - Rarely two foramina = canals of Scarpa



Nasopalatine duct cyst

- 4th to 6th decades
- Swelling, drainage, pain or asymptomatic
- Radiolucency (sometimes heart-shaped) at or near the midline, between and apical to central incisors
- Incisive canal size ~ 6mm
- Cysts may reach 3 cm and cause a “through-and-through” expansion of the jaw





Nasopalatine duct cyst

- Histology
  - Stratified squamous epithelium
  - Pseudostratified columnar epithelium
  - Simple epithelium
  - Respiratory epithelium
  - Nerve bundles and muscular arteries and veins
  - Cartilagenous remnants
- Treatment
  - Surgical enucleation

Median palatal (palatine) cyst

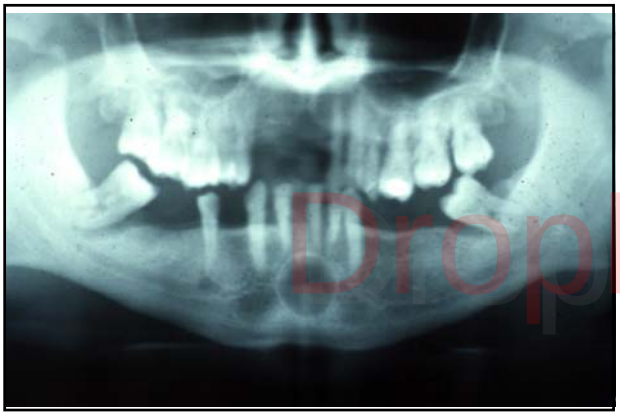
- Most cases are posteriorly positioned nasopalatine cysts
- Fusion between palatal shelves of the maxilla
- Midline of hard palate
- Swelling (it’s a must) ~ 2cm
- Well circumscribed radiolucency

Nasolabial cyst

- Upper lip lateral to midline
  - Medial - lateral nasal and maxillary processes OR
  - Misplaced epithelium of nasolacrimal gland
- Elevation of nasal ala
- No pain except if infected
- More women than men
- Can be bilateral
- Surgical removal

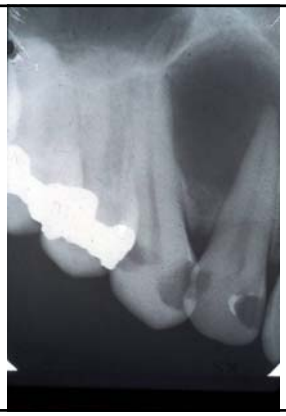
"Median mandibular cyst"

- Controversial
  - There are no epithelial lined processes
- Midline of mandible
- Most of them periapical or lateral periodontal cysts or odontogenic keratocysts



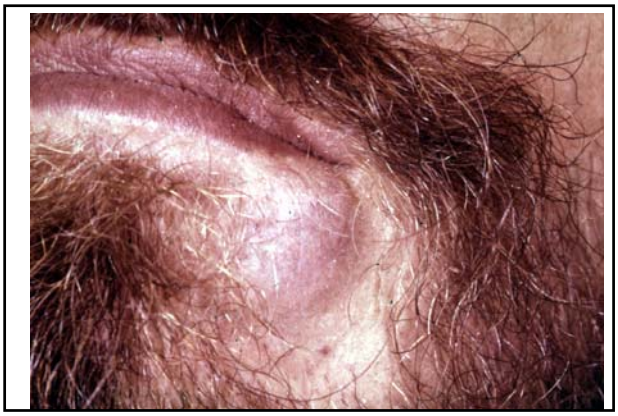
"Globulomaxillary cyst"

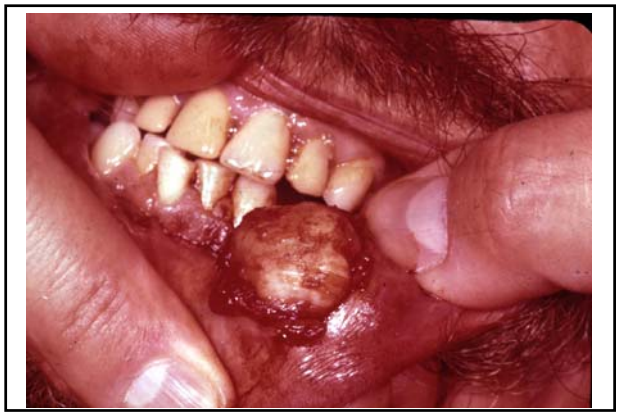
- Controversial
  - Alleged fusion of maxillary process and medial nasal process
  - No epithelial entrapment
  - Most if not all cysts are of odontogenic origin
- Lateral incisor and canine
- Surgical excision

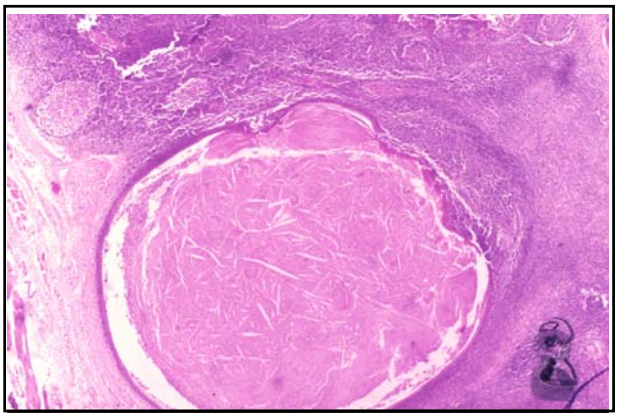


Epidermoid cyst

- a.k.a. infundibular cyst, sebaceous cyst (wrong term); epidermal inclusion cyst (after trauma)
- More frequent in acne-prone areas
- DERIVE FROM HAIR FOLLICLE
- Unusual before puberty except when associated with Gardner syndrome
- Nodular, fluctuant subcutaneous lesion, white or yellow
- Cavity lined by epithelium containing keratin

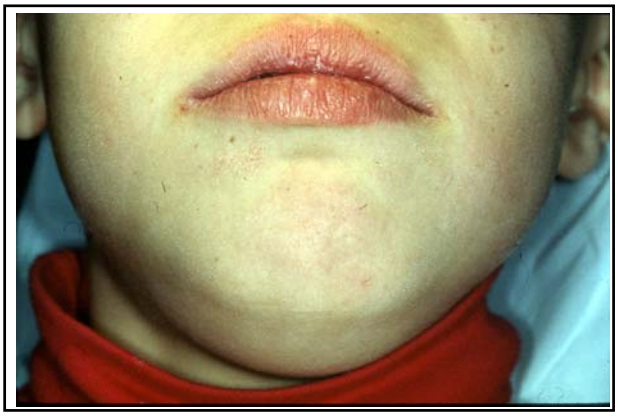


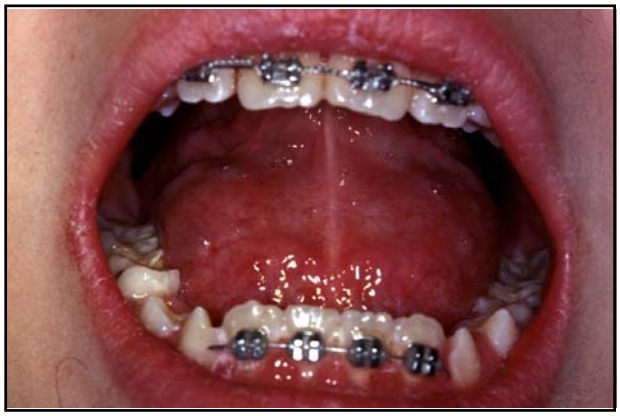




Dermoid cyst

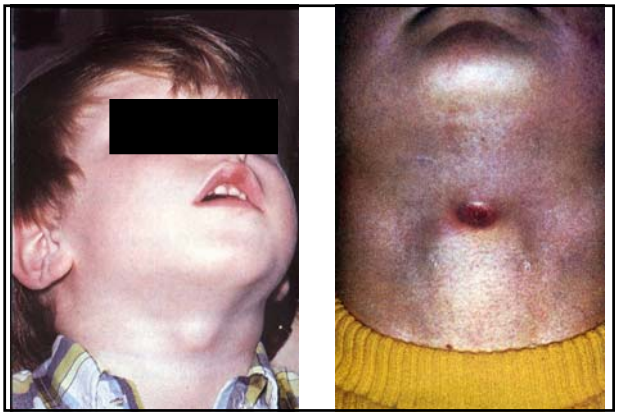
- Benign cystic teratoma (tissue form all three embryonic layers)
- Dermoid cyst is a forme fruste
- Intraoral epidermoid cyst
- Midline of floor of mouth or rarely displaced laterally – above the genyohyoid muscle
- Submental swelling – below the genyohyoid muscle
- Few mm to several cm
- Children and young adults
- Doughy or rubbery mass; may drain





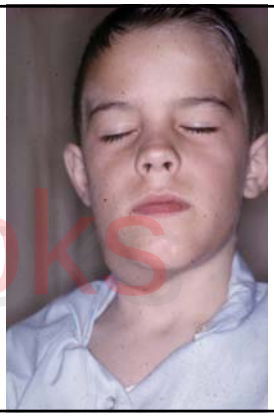
Thyroglossal duct (tract) cyst

- Review thyroid develoment
- Remnants of the thyroglossal duct epithelium
- Have been described in families
- Midline (foramen cecum→suprasternal notch)
  - Except if they are located in the area of thyroid cartilage
- More frequently below the hyoid
- ! Base of tongue→airway obstruction
- Clue: If it maintains attachment to hyoid bone or tongue it will move vertically during swallowing or protrusion of the tongue; can cause fistulous tract
- Thyroid tissue may be absent histologically



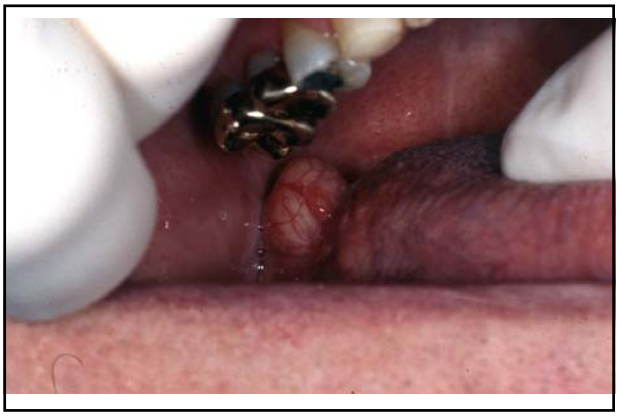
Branchial cleft cyst

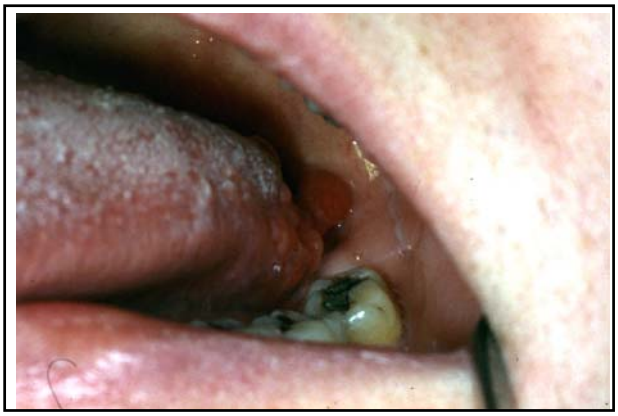
- a.k.a. cervical lymphoepithelial cyst
- From branchial clefts (2nd arch), or cystic change of parotid gland epithelium entrapped in upper cervical lymph nodes (not valid)
- Lateral upper neck along the anterior border of the sternocleidomastoid muscle
- Young adults, fluctuant, between 1-10 cm, more frequently on the left
- Occasionally a fistula
- Contain lymphoid tissue (occasionally not though)
- Rare examples of malignant transformation

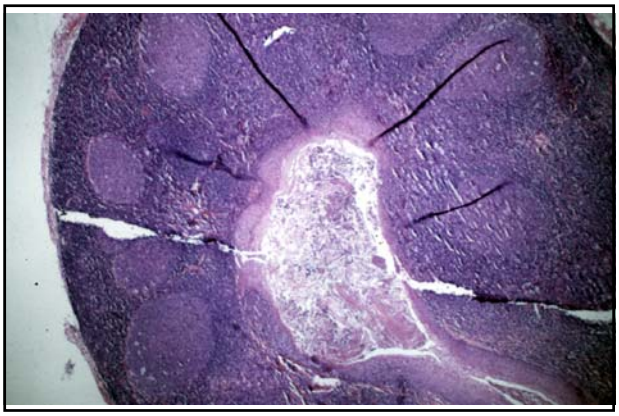


Oral lymphoepithelial cyst

- Invaginations of epithelium resulting in pouches or crypts that may fill with keratin debris
- Salivary gland or surface epithelium that becomes entrapped
- Less than 1 cm
- Firm or soft to palpation
- White or yellow
- DD: lipoma





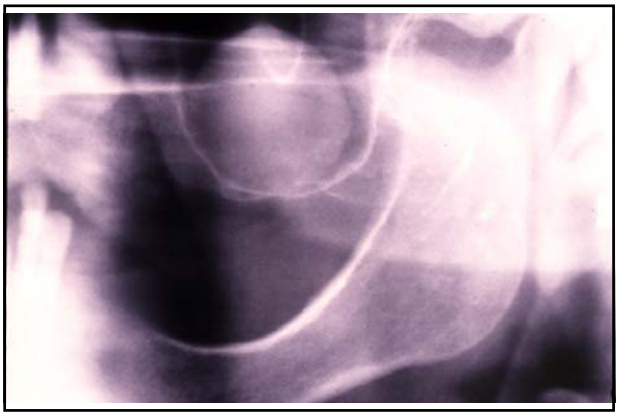


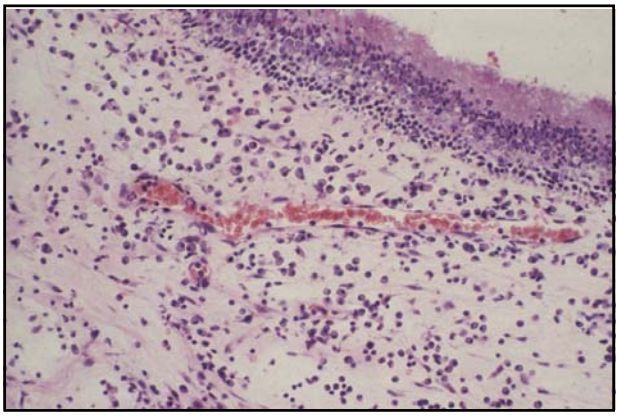
Antral pseudocysts

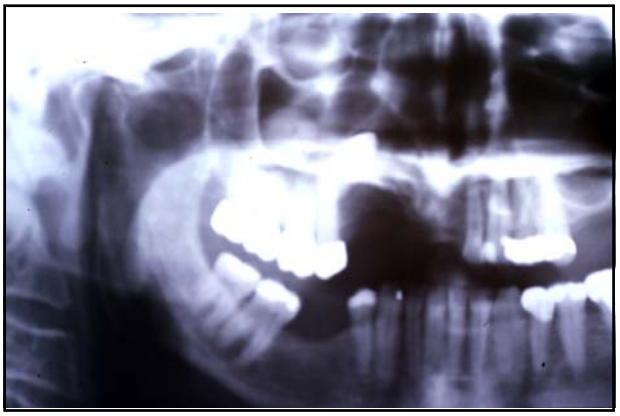
- Antral pseudocyst
- Sinus mucocele
  - –Surgical ciliated cyst
  - –Obstruction (ostium) mucocele
- Retention cyst
  - –Obstruction of ducts of seromucous glands
  - –Invagination of epithelium

Antral pseudocyst

- Common finding of mostly panoramic radiographs
- Dome-shaped, slightly radiopaque
- Floor of maxillary sinus
- NOT A CYST
- Inflammatory exudate; probable odontogenic origin
- Other causes may be: allergy, sinus infection
- No treatment necessary if not associated with signs and symptoms (enlargement; headache)
- EVALUATION OF TEETH







Sinus mucocele

- Whole sinus is cloudy when ostium obstructed
- Post surgical cysts can enlarge
- Surgical removal or meatal antrostomy

Retention cyst

- Very small to be detectable